Senior Academic Leadership Initiative

Senior Professor in Physics – Astrophysics, Geophysics or Theoretical Physics

SENIOR ACADEMIC LEADERSHIP INITIATIVE
SALI is managed by the Higher Education Authority, on behalf of the Department of Education and Skills. Following a competitive process based on an annual Call for applications from higher education institutions, this new and additional senior academic leadership post in physics has been approved for DIAS to assist in accelerating gender balance at senior levels.

Background
Diversity is a key strength of Irish higher education. In recent decades our universities, institutes of technology, and colleges have been transformed, from predominantly national institutions catering primarily for school-leavers, to internationally oriented institutions engaged with an increasingly diverse student body, of all ages, backgrounds and gender identities.

Higher education legislation requires institutions to promote gender-balance among students and staff, and for the HEA to promote the attainment of equality of opportunity.

The HEA National Review of Gender Equality in Irish Higher Education Institutions (2016) was an important first step in highlighting the gender inequality that existed at senior academic levels in our HEIs. The HEA Expert Group report outlined a number of recommendations for the HEIs, HEA, research funding agencies and other key stakeholders. However, since the publication of the HEA Expert Group report, progress has remained exceptionally slow.

The DES proposed that a targeted and proportionate positive action should be taken to accelerate the achievement of gender equality objectives.

Such an approach is consistent with a range of Government strategies and policies including, for example:

- National Strategy for Women and Girls
- Equality Budgeting Initiative

The Gender Equality Taskforce identified significant measures that could accelerate progress in achieving gender equality in the Irish HEIs. Their Action Plan 2018-2020 encompasses a suite of initiatives to bring about sustainable organisational change and to empower a culture of gender equality in the HEI’s for all staff, academic and professional, as well as management and support staff at all levels. Ambitious targets for the proportion of academic and professional, management and support staff of each gender to be in senior positions in 1, 3 and 5 years will be agreed with the HEA and monitored annually through the Strategic Dialogue process. Their
The HEA Expert Group and Gender Equality Taskforce both recognised that in addition to the organisational and culture change initiatives needed, a significant targeted positive action initiative was required in order to effect change within a reasonable timeframe at the highest academic level in both sectors. Analysis of recruitment trends by the Gender Equality Taskforce highlighted that rate of change, over the period 2013 – 2017, at the most senior grades is slower than at other grades.

International evidence is that the establishment of new and additional gender-specific posts would be a proportionate and effective means to achieve rapid and sustainable change, and on that basis has the potential to be transformative for the higher education sector in terms of securing gender equality goals.

As part of the launch of the Gender Equality Taskforce Action Plan, it was also announced that a new Senior Academic Leadership Initiative (SALI) would be established.

**Objective of the Initiative**
The Senior Academic Leadership Initiative aims to help achieve equality of outcome in the higher education sector. New and additional senior academic leadership posts have been funded in areas where:

- there is clear evidence of significant gender under-representation;
- where this appointment will have significant impact within the faculty/department/functional unit and the HEI;
- where they would be a proportionate and effective means to achieve accelerated and sustainable change within an institution.

A total of 45 senior academic leadership initiative posts are being provided across sectors (e.g. university and institute of technology) over three cycles of awards. These posts are new and additional to the sector, i.e. they are in addition to the existing Employment Control Framework (ECF), and they are funded through new and additional funding provided specifically to help address the significant gender imbalance among academic staff at senior levels. Twenty posts have been provided under the first cycle.

The key objective of this Initiative is principally to attract outstanding female applicants both from within the sectors currently and internationally. The Initiative will also assist in increasing the number of women involved in the decision-making processes in the institutions, as advocated in the *EU Commission Strategy on Promoting Equality in Decision Making*.

In securing the post of Senior Professor in Physics under this initiative, our institution has demonstrated our commitment to gender equality. Our institution has also demonstrated plans for future developments in this area - see our Gender Equality and Inclusion Strategy [here](https://www.dias.ie/wp-content/uploads/2020/02/Gender-Equality-Taskforce-Action-Plan-2018-2020.pdf) - and has outlined the organisational and cultural initiatives in place to support the newly appointed staff. DIAS is an Institute of Physics Juno Supporter.
While this Initiative gives priority to highly qualified female candidates within the boundaries of what is legally permissible, in order to address their underrepresentation; preferential consideration of female candidates is excluded if other reasons worthy of legal protection prevail. In exceptional circumstances, candidates who are in a minority or protected under Irish social legislation, or who also belong to an underrepresented minority in academic posts may be considered if the institution can clearly articulate reasons worthy of legal protection as to why they should be considered.

Applicant eligibility

This SALI post has been approved by the HEA to our institution in the area of Physics, specifically in either Astronomy & Astrophysics, Geophysics or Theoretical Physics and the applicant can only be appointed within one of these broad areas. Only applicants who are suitably qualified will be appointed. If applicants do not meet the normal competition rules for appointment at Senior Professor level, then appointments will not be made.

This is a dedicated Call under the Senior Academic Leadership Initiative, and is an open competition for which both internal and external candidates will be eligible. In line with the objectives of the HEA SALI Call 2019, applications from highly qualified female candidates will be prioritised within the boundary of what is legally permissible, in order to address their underrepresentation. However, preferential consideration of female candidates is excluded if other reasons worthy of legal protection prevail. In exceptional circumstances, applications from candidates who are in a minority or protected under Irish social legislation, or who also belong to an underrepresented minority in academic posts may be considered, where they clearly articulate in a separate eligibility statement, as part of their application, reasons worthy of legal protection as to why they should be considered.

DUBLIN INSTITUTE FOR ADVANCED STUDIES (DIAS)

The Dublin Institute for Advanced Studies (DIAS) conducts advanced research exploring big questions of the 21st century and beyond. Its research gains insights into Celtic society and its legacy; progresses our understanding of our island, our planet and the universe; and deciphers the underpinning mathematical principles of nature.

DIAS was founded in 1940 as an independent institute for advanced studies by an Act of Parliament with Professor Erwin Schrodinger as its first Senior Professor of Physics. It was the world’s second-only institute for advanced studies – and the first such institute in Europe. For 80 years, it has pushed the boundaries of discovery and, today, it is a globally-embedded institution that attracts high-calibre researchers from over 20 countries worldwide. It has in excess of 100 researchers in its core disciplines of Theoretical Physics, Astronomy & Astrophysics, Geophysics and Celtic Studies. The Institute also is the home of a number of national research infrastructures and DIAS participates on behalf of Ireland in a number of international and global initiatives including the HESS (the High energy Stereoscopic System) observatory, ESO (the European Southern Observatory), EPOS (the European Plate Observing System). DIAS Dunsink

1Institute for Advanced Studies Act, 1940 https://www.dias.ie/dias-actsestablish/
Observatory, a designated European site of historical significance for physics, functions as heritage and outreach facility.

Further to the above, our mission as an institute for advanced studies is to push the boundaries of current understanding in our specialist disciplines and to conduct fundamental research to the highest international standards; to enable researchers at all career stages to flourish and fulfil their research potential, including to train talented scholars in advanced research; to provide a neutral dedicated research space and a conducive intellectual environment for local and international researchers to conduct advanced studies, explore ideas, and engage in unconstrained thought. DIAS will in 2020 introduce an Adjunct Faculty Programme and initiate a formal Visiting Programme.

DIAS is not a degree-awarding body but may provide training to postgraduate students in the methods of original research. DIAS hosted PhD Scholarship award holders who register in a university can, by arrangement between the institutions, submit their research for a postgraduate degree. In this regard, DIAS and its constituent Schools enjoys excellent relations with the local universities and cooperation at all levels is actively encouraged. Such cooperation includes shared seminars, the joint supervision of graduate students and the provision of specialist lecture courses as well as collaborative research projects. Building such collaborative research networks is seen as an important part of the Schools’ function.

In late 2018, DIAS launched a new strategy setting out four overarching strategic goals:
- Discovery of new knowledge and understanding through excellence and researcher-led endeavor
- International research collaboration benefitting Ireland and the world
- Attraction and cultivation of research leaders, and
- Strengthening our disciplines and research communities nationally


A summary of the schools areas relevant to this invitation of applications follows. Additional information about DIAS, its schools and its activities can be found on our website: https://www.dias.ie/.

SCHOOL OF THEORETICAL PHYSICS

The leading function as stated in the Establishment Order$^2$ is:
- the investigation of the mathematical principles of natural philosophy and the application of those principles to the physical and chemical group of sciences and to geophysics and cosmology;

The school is highly regarded internationally for work on quantum field theory, string theory, statistical mechanics and quantum information. Groundbreaking research on the deep structure of quantum fields and related physical structures, and the development of new mathematical tools for their study, in addition to work on the theory of quantum information and the emergence of geometry out of a world of quantum fluctuations, are current areas of focus. The reconciliation of

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$^2$ School Establishment Orders https://www.dias.ie/dias-actsestablish/
Einstein’s theory of relativity (gravity) and quantum physics – a key global question – and the fundamental physics of phase transitions are also current areas of interest.

The school has an extensive national and international network. It provides facilities for university professors and lecturers on leave of absence from their academic duties and it organises seminars, conferences, and lectures. Additional information on the School’s activities can be found at this site https://www.dias.ie/stp/

SCHOOL OF COSMIC PHYSICS

The School of Cosmic Physics is structured into two divisions: one focused on the interior and surface of the Earth (Geophysics Section) and the other focused outwards into space (Astronomy and Astrophysics Section). The School is a leader of national activity in these areas and is highly respected internationally for the depth, breadth and quality of its activities.

Astronomy & Astrophysics

The Astronomy & Astrophysics Section is well known for research in solar physics and space weather, star formation, astroparticle physics and particle acceleration and plasma astrophysics. In recent years, Ireland has continued to invest in the European Space Agency (ESA) and a consortium of Irish institutes, which includes DIAS, has recently installed an international LOFAR telescope at Birr Castle. With Ireland’s recent membership of the European Southern Observatory (ESO), which DIAS was instrumental in achieving, DIAS Astrophysics is well placed to capitalise on these national investments.

DIAS Astrophysics is also currently involved in major international ground- and space-based astronomical facilities, such as the successor to the Hubble Space Telescope, the James Webb Space Telescope, and ESA’s Solar Orbiter spacecraft which had on board equipment developed by DIAS. It is also a co-investigator for the ARIEL satellite which will search for exoplanets DIAS is one of the founding members of the extremely successful HESS collaboration. The section marked 50 years as space research pioneers in 2019. Indeed, Ireland has entered a new era for professional astronomy and DIAS Astrophysics is well placed to capitalise in the coming years.

Additional information on the activities of the Astronomy & Astrophysics Section can be found at this site: https://www.dias.ie/cp-geophysics/astro/

Geophysics

The Geophysics Section’s primary remit is to undertake advanced research in Earth physics and it is the national leader in this area in addition to being internationally respected as a top tier research centre, in the niche areas in which it operates. Its main disciplinary areas of research are: global & regional scale seismology, volcano seismology, potential field studies, electromagnetic investigations & computational petrophysical-geophysical inversion. These disciplines are applied to geophysical problems from global to laboratory scales including the solid earth and, to a somewhat lesser extent, the oceans.

In addition to its research function, as part of its community service DIAS Geophysics also operates the Irish National Seismic Network (www.insn.ie) and the insitu Marine Laboratory for Geosystems Research (www.imarl.ie). It also initiates and participates in geophysics field campaigns across the world engaging its own substantive pool of equipment. It plays a role at
both a national and international level in EPOS (European Plate Observing System (www.epos-ip.org)).

Ongoing public outreach and engagement includes running a Seismology in Schools programme and communicating results of projects of potential interest to the public (e.g. https://sea-seis.ie/).

Additional information on the activities of the Geophysics Section can be found at this site: https://www.dias.ie/cp-geophysics/

ROLE OF SENIOR PROFESSOR
Senior Professors are the most senior academic appointment in DIAS. They are required to devote their time and ability to the furtherance of the research and work of the relevant School and perform any duties assigned to them by the Governing Board of the School or the Director of the School. As this is a full-time research position, it does not carry any undergraduate teaching responsibilities. However, some guest lecturing in local universities is encouraged.

The appointed Senior Professor, who automatically sits on the School Governing Board, and is eligible to be appointed Director of the School, would be a key member of the leadership group at DIAS. DIAS has been awarded the post and funding to specifically address the absence of female representation at Senior Professor level in physics. The post also addresses a lack of female representation at the most senior level within Astronomy/Astrophysics, Geophysics and Theoretical Physics in Ireland. The individual would participate in public engagement activities showcasing their excellent research. They would also engage with the broader physics community in Ireland in order to deliver on the objectives of the Senior Academic Leadership Initiative. As a senior member of the DIAS team the appointee will, with other senior team members, play a key role in the advancement of the DIAS Gender Equality and Inclusion Strategy.

APPLICATION PROCEDURE
Applications should be submitted through the DIAS online e-recruitment system: https://www.dias.ie/. Candidates are required to upload a letter of application, an academic CV (which should include the names and contact details of at least three referees), a research statement summarising their most significant publications together with a short statement outlining their vision for their tenure at DIAS. They are also required to provide a separate statement (Appendix 1 below) outlining their suitability for this particular post in relation to the stated objectives of the Senior Academic Leadership Initiative or detail any exceptional circumstances as to why they should be considered for this post (Max 300 words). The statement provided will form part of the initial eligibility screening process for this particular post.

Applications received before the close of business on April 30th 2020 will be acknowledged and assessed. DIAS may, at its absolute discretion, extend the closing date and in addition may admit applications or candidates other than those who apply directly, having regard to the conditions attaching to SALI.

ASSESSMENT PROCESS
The normal DIAS recruitment procedures for Senior Professors will apply. Those candidates which best address the requirements for this post will be invited for an interview.
In line with the HEA Expert Group recommendation 1.16, institutions are required to review the
recruitment and assessment procedures currently being used to ensure that such processes are
gender-proof. For example, institutions should consider how best to factor in time spent away
from an academic career when asking for measurable outputs, e.g. asking applicants to identify
their top 3–5 publications/outputs with no time limits would negate periods of time spent away
from an academic career, however asking for the publications/outputs over the last 5 years would
disadvantage someone who has spent time away from their academic career.

A key objective of the Initiative is to strengthen diversity at senior academic leadership level in
Higher Education Institutions (HEIs) given the benefits that increased diversity would be
expected to generate for HEIs as set out in the report of the Gender Equality Taskforce. As well
as assessing academic achievement, other capabilities and life experiences which have been
acquired by applicants outside of the academic environment can be taken into account in
assessing candidates, in so far as they are of importance for the suitability, performance and
capability of applicants to perform senior academic leadership roles in DIAS and to underpin
the achievement of increased diversity of that level.

**TERMS & CONDITIONS OF APPOINTMENT**
The successful candidate will be appointed as a Senior Professor in either the School of Cosmic
Physics (Astronomy or Geophysics section) or the School of Theoretical Physics. The position
is permanent and the appointment will be under our standard terms and conditions of
employment.

**SALARY**
The current remuneration attaching to the position is €163,157 (personal pension contribution
scale- post 1995 entrants to public sector); €155,000 (non personal pension contribution scale –
pre 1995 entrants to public sector) ³

**MEDICAL EXAMINATION**
The nomination for appointment as Senior Professor will be subject to receipt of a satisfactory
medical report.

**PENSION AND RETIREMENT**
Pension terms and retirement age conditions will depend on the status of the successful appointee.
As a general guide, for a Senior Professor, the minimum retirement age is 65 and the maximum
retirement age is 70. Further information is available through the links below.

First-time entrants to the Irish public sector: [https://dias.ie/PensionInformationSTPSeniorProfessor2019](https://dias.ie/PensionInformationSTPSeniorProfessor2019)

Pre-existing Public Servants: [https://dias.ie/PensionInformationSTPSeniorProfessor2019](https://dias.ie/PensionInformationSTPSeniorProfessor2019)

At the time of being offered an appointment, DIAS will, in the light of the appointee’s previous
Public Service (and/or other) employment history, determine the appropriate pension terms and

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³ The higher salary for post-1995 public sector entrants reflects the fact that this category of staff pay an
additional contribution for their personal pension and also pay the full rate of Pay Related Social
Insurance.
conditions to apply for the appointment. Appointees will be required to disclose their full public service history. Details of the appropriate pension/superannuation provisions will be provided upon determination of appointee’s status.

Appendix 1

Applicant Statement
In line with the objectives of the HEA SALI Call 2019, applications from highly qualified female candidates will be prioritised within the boundary of what is legally permissible, in order to address their underrepresentation. However, preferential consideration of female candidates is excluded if other reasons worthy of legal protection prevail. In exceptional circumstances, applications from candidates who are in a minority or protected under Irish social legislation, or who also belong to an underrepresented minority in academic posts may be considered if the institution can clearly articulate reasons worthy of legal protection as to why they should be considered.

Please provide a statement outlining your suitability for this particular post in relation to the stated objectives of the Senior Academic Leadership Initiative or detail any exceptional circumstances as to why you should be considered for this post. (maximum 300 words).
The statement provided will form part of the initial eligibility screening process for this particular post.